

Remarks

Claims 1, 2, 4 to 8, 10, 11, 13, 14 and 16 to 18 remain in this application.

Claims 2 and 5 have been amended as suggested. Claim 5 has been further amended for clarity.

The suggested amendment of claims 1, 4 and 16 would obfuscate the language of the claims and have not been made. For example, claim 1, as presently stated, reads in part, "A N-dimensional biometric security system comprising ... a controller to receive and validate said signal as representative of the user, said controller communicating with said first data base for randomly generating a one-time challenge phrase ... and delivering said one-time challenge phrase ... in response to validation of said signal...".

The suggested amendment would have claim 1 read "A N-dimensional biometric security system comprising ... a controller to receive and validate said signal as representative of the user, said controller in response to validation of said signal communicating with said first data base for randomly generating a one-time challenge phrase ... and delivering said one-time challenge phrase".

Reconsideration of the rejection of claims 1-2,4-7,16 and 17 as being anticipated by Hattori is requested.

Hattori is directed to a speaker recognition device wherein the unknown speaker is instructed to utter at least two kinds of things: a 'specified text' and a 'password'. The speaker recognition device inputs the specified text and the password uttered by the unknown speaker and an ID inputted by the unknown speaker, and judges whether or not the unknown speaker is an authentic registered speaker, using the text contents of the specified text uttered by the unknown speaker and acoustic features of the

password uttered by the unknown speaker. The unknown speaker is judged to be the authentic registered speaker if the text contents of the specified text uttered by the unknown speaker is the same as that of the specified text instructed by the speaker recognition device and the degree of similarity between the acoustic features of the password uttered by the unknown speaker and the acoustic features of the password uttered by the authentic registered speaker who corresponds to the inputted ID is larger than a predetermined threshold value. (column 8, line 65 to column 9, line 20)

For example, the speaker recognition device may instruct the unknown speaker to utter a specified text and a password by displaying "Please say the date of today 'December the twenty-fifth' and your password in series". (Hattori, column 9, lines 61 to 64). Then, the speaker recognition device links together the speaker independent phoneme/syllable reference patterns and generates a reference pattern of the date of the day ("December the twenty-fifth") and a reference pattern of a password of a registered speaker (customer) who corresponds to an ID which has been inputted by the unknown speaker, establishes time-correspondence between the two generated reference patterns and an input pattern (which is composed of a time sequence of feature vectors or time sequences of feature values) of the utterance by the unknown speaker by means of dynamic programming method, and segments the input pattern of the unknown speaker into two parts (i.e. a first input pattern corresponding to the date ("December the twenty-fifth") and a second input pattern corresponding to the password) using the time-correspondence.

The embodiment of Fig. 5 of Hattori shows a text generation section 201 that generates a specified text to be uttered by an unknown speaker together with a

password. The specified text generated by the text generation section 201 is presented to the unknown speaker by means of sound, image, etc. by the presentation section 202, and the unknown speaker is instructed to input an ID and utter the specified text and the password in series. (column 14, lines 47 to 49).

Claim 1 requires "a station for receiving information representative of a user from the user and generating a signal responsive thereto" and "a controller to receive and validate said signal as representative of the user...". Hattori does not describe or teach such a structure.

The Examiner considers that Hattori at column 9, lines 5 to 11 provides the claimed station. However, this passage of Hattori reads:

"The speaker recognition device inputs the specified text and the password uttered by the unknown speaker and an ID inputted by the unknown speaker, and judges whether or not the unknown speaker is an authentic registered speaker, using the text contents of the specified text uttered by the unknown speaker and acoustic features of the password uttered by the unknown speaker.

There is no disclosure in Hattori as to how the speaker recognition device is activated. That is, in the embodiment of Fig. 5, the text generation section 201 generates a specified text to be uttered by an unknown speaker together with a password. The specified text generated by the text generation section 201 is presented to the unknown speaker by the presentation section 202, and the unknown speaker is instructed to input an ID and utter the specified text and the password in series. (column 14, lines 47 to 49). There is no disclosure as to what activates the text generation section 201. In Applicant's claimed structure the speaker activates the system by inputting information to the "station for receiving information ... from the user...and

generating a signal responsive thereto". Once the signal is generated, the claimed "controller" receives and validates the signal. Only thereafter does the controller communicate with the first data base for randomly generating a one-time challenge phrase to be delivered to the station for the user to speak.

Claim 1 further requires "a first data base having a plurality of words and language rules for randomly generating one-time challenge phrases". In Hattori, the text generation section 201 generates a specific text to be uttered by the unknown speaker together with a password. However, the text generation section 201 does not provide a password. Instead, the unknown speaker is to speak not only the specific text but also provide a password with the specific text.

Claim 1 further requires the controller to deliver the one-time challenge phrase "to said station for the user to speak said one-time challenge phrase exactly". In Hattori the unknown speaker is to speak not only the specific text but also a password. Thus, Hattori does not describe or teach the claimed structure.

Claim 1 requires the controller to "receive a spoken response from the user to said delivered one-time challenge phrase and to generate a second signal representative of the spoken response, to process **said second signal for speaker recognition** and to issue a first validation signal in response to a match between said second signal and said stored biometric model, [and] to process **said second signal for speech recognition** and to issue a second validation signal in response to said second signal exactly matching said one-time challenge phrase". Hattori does not describe or teach such a structure. Instead, in the Fig. 5 embodiment, the time correspondence section 506 generates a reference pattern of the specified text and a

reference pattern of a password of one registered speaker who corresponds to the ID which has been inputted by the unknown speaker, and segments the input pattern of the unknown speaker into two parts (i.e. a first input pattern corresponding to the specified text and a second input pattern corresponding to the password). Subsequently, the text verification section 507 executes the 'text verification' of the first input pattern and a speaker reference pattern storing section 103 calculates the degree of similarity between the reference pattern read out from the storing section 103 and the second input pattern corresponding to the password. Hattori does not process the same signal for both speaker recognition and speech recognition.

In view of the above, a rejection of claim 1 as being anticipated by Hattori is not warranted pursuant to the provisions of 35 USC 102.

Note is made that Applicant's claimed structure and method do not require the use of a spoken password as in Hattori.

Claim 2 requires the steps of "initially inputting information representative of the user at a station; generating a first signal responsive to the information; [and] receiving and validating said first signal as representative of the user". Hattori does not describe or teach such steps. As noted above, there is no disclosure in Hattori as to what activates the text generation section 201.

Claim 2 further requires the steps of " thereafter, in response to validation of said first signal, generating and delivering a randomly generated one-time challenge phrase at said station for the user to speak exactly ... generating a second signal representative of a spoken response to said challenge phrase; thereafter receiving and simultaneously processing the second signal for speaker verification and for speech recognition ...".

Hattori does not describe or teach such steps. As noted above, In Hattori the unknown speaker is to speak not only the specific text but also a password and segments the input pattern of the unknown speaker into two parts (i.e. a first input pattern corresponding to the specified text and a second input pattern corresponding to the password) for separate verification.

Accordingly, a rejection of claim 2 as being anticipated by Hattori is not warranted pursuant to the provisions of 35 USC 102.

Claim 4 contains recitations similar to claim 1 and is believed to be allowable for similar reasons.

Claim 5 contains recitations similar to claim 2 and is believed to be allowable for similar reasons.

Claims 6, 11 and 14 depend from claim 5 and is believed to be allowable for similar reasons.

Claims 7 and 8 depends from claim 5 and are believed to be allowable for similar reasons.

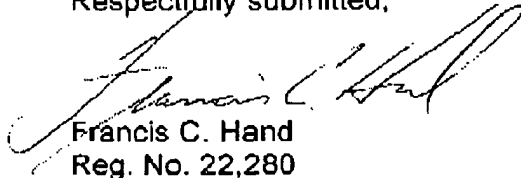
Claim 16 contains recitations similar to claim 1 and is believed to be allowable for similar reasons.

Claim 17 contains recitations similar to claim 1 and is believed to be allowable for similar reasons.

New claim 18 depends from claim 4 and is believed to be allowable for similar reasons.

The application is believed to be in obvious condition for allowance and such is respectfully requested.

Respectfully submitted,



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